

## Amendments to the Claims

1. (Currently Amended) An apparatus for debugging source code, the apparatus comprising:  
a programmable hardware device configured to execute a plurality of executable code modules, the executable code modules comprising:

a function selector configured to be displayed to a user to enable ~~the~~ a user to select a target function and associate at least one initialization routine with the target function;

the function selector configured to generate an execution request in response to selection of the target function by the user;

a task dispatcher configured to dispatch the at least initialization routine and the target function in response to receiving the execution request; and

the at least one initialization routine configured to initialize a target environment to a particular state, the at least one initialization routine selectively coupled by the user to ~~a~~ the target function within a target application.

2. (Canceled)
3. (Canceled)
4. (Currently Amended) The apparatus of claim 1 ~~3~~, wherein the function selector is integrated into the source code debugger.
5. (Currently Amended) The apparatus of claim 1 ~~3~~, wherein the particular state corresponds to an application error.

6. (Original) The apparatus of claim 1, further comprising a deployed system configured to dump information used to initialize the target environment to the particular state.
7. (Original) The apparatus of claim 1, wherein the at least one initialization routine comprises a function independent initialization routine and a function dependent initialization routine.
8. (Original)The apparatus of claim 1, wherein the source code debugger is further configured to single step through the target function.
9. (Currently Amended) A method for debugging source code, the method comprising:
  - displaying a function selector configured to enable ~~enabling~~ a user to select a target function and associate at least one initialization routine with the target function;
  - generating an execution request in response to selection of the target function by the user;
  - dispatching the at least one initialization routine and the target function in response to receiving the execution request, the at least one initialization routine selectively coupled by the user to the target function within a target application and configured to initialize a target environment to a particular state; and
  - initializing the target environment to the particular state.
10. (Original) The method of claim 9, further comprising collecting state information from a deployed environment.
11. (Original) The method of claim 9, further comprising collecting state information in response to an application error.

12. (Original) The method of claim 9, wherein dispatching the at least one initialization routine comprises dispatching a function independent initialization routine and a function dependent initialization routine.

13. (Original) The method of claim 9, further comprising single stepping through the target function.

14. (Original) The method of claim 9, further comprising recompiling kernel mode code into user mode code.

15. (Currently Amended) An apparatus for debugging source code, the apparatus comprising:  
a programmable hardware device configured to execute a plurality of executable code modules, the executable code modules comprising:

means for displaying a function selector configured to enable ~~enabling~~ a user to select a target function and associate at least one initialization routine with the target function;

means for generating an execution request in response to selection of the target function by the user;

means for dispatching the at least one initialization routine and the target function in response to receiving the execution request, the at least one initialization routine selectively coupled by the user to the target function within a target application and configured to initialize a target environment to a particular state; and

means for initializing the target environment to the particular state.

16. (Original) The apparatus of claim 15, further comprising means for collecting state information from a deployed environment.

17. (Original) The apparatus of claim 15, further comprising means for collecting state information in response to an application error.
18. (Original) The apparatus of claim 15, further comprising means for single stepping through the target function.
19. (Currently Amended) A system for debugging source code, the system comprising:
- a target environment comprising a programmable hardware device configured to execute a target platform including an operating system and a target application;
  - a function selector configured to be displayed to a user to enable ~~the~~ a user to select a target function and associate at least one initialization routine with the target function;
  - the function selector configured to generate an execution request in response to selection of the target function by the user;
  - a task dispatcher configured to dispatch at least one initialization routine and the target function in response to receiving the execution request; and
  - the at least one initialization routine selectively coupled by the user to the target function within a target application and configured to initialize the target environment to a particular state.
20. (Original) The system of claim 19, further comprising a deployed system configured to provide information used to initialize the target environment to the particular state.
21. (Currently Amended) A computer readable storage medium comprising computer readable program code for debugging source code, the program code configured to conduct a method comprising:
- displaying a function selector configured to enable ~~enabling~~ a user to select a target function and associate at least one initialization routine with the target function;

generating an execution request in response to selection of the target function by the user;  
dispatching the at least one initialization routine and the target function in response to  
receiving the execution request, the at least one initialization routine selectively  
coupled by the user to the target function within a target application and  
configured to initialize a target environment to a particular state; and  
initializing the target environment to the particular state.

22. (Original) The computer readable storage medium of claim 21, wherein the method further comprises collecting state information from a deployed environment.

23. (Original) The computer readable storage medium of claim 21, wherein the method further comprises collecting state information in response to an application error.

24. (Original) The computer readable storage medium of claim 21, wherein dispatching the at least one initialization routine comprises dispatching a function independent initialization routine and a function dependent initialization routine.

25. (Original) The computer readable storage medium of claim 21, wherein the method further comprises single stepping through the target function.

26. (Original) The computer readable storage medium of claim 21, wherein the method further comprises recompiling kernel mode code into user mode code.